

What is claimed is:

1. A permission token management system comprising:
a token table for storing tokens which correspond
respectively to a plurality of permissions installed in a
terminal and are calculated by a predetermined conversion
5 process performed to permission character strings
indicating the permissions;

conversion means for, when a permission character
string indicating a specific permission is input,
performing the predetermined conversion process to the
10 permission character string; and

searching means for searching the token table using a
token which is a conversion result of the conversion means,
and determining whether the token exists in the token table
or not.

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2. A permission token management method comprising
the steps of:

storing tokens which correspond respectively to a
plurality of permissions installed in a terminal and are
5 calculated by a predetermined conversion process performed
to permission character strings indicating the permissions;

when a permission character string indicating a
specific permission is input, performing the predetermined

conversion process to the permission character string; and
 10 searching a token table using a token which is a
 conversion result of the conversion process, and
 determining whether the token exists in the token table or
 not.

3. A recording medium into which a program for
 causing a computer to execute each step as claimed in claim
 2 is recorded.

4. A program as an electric signal for causing a
 computer to execute each step as claimed in claim 2.

5. A permission token management system comprising:
 a token table for storing tokens which correspond
 respectively to a plurality of permissions installed in a
 terminal and are calculated by a predetermined conversion
 5 process performed to permission character strings
 indicating the permissions;

 search request/saving means for, when a permission
 character string indicating a permission necessary for
 normally operating an application program intended to be
 10 downloaded is input, outputting a search request including
 the permission character string;

 conversion means for performing the predetermined

conversion process to the permission character string
 included in the search request output from the search
 15 request/saving means, and outputting a token which is a
 conversion result; and

first searching means for searching the token table
 using the token output from the conversion means to thereby
 determine whether a permission necessary for normally
 20 operating the application program is installed in the
 terminal or not.

6. The permission token management system as claimed
 in claim 5, further comprising:

a token attribute information table within which,
 relating to each of the plurality of permissions installed
 5 in the terminal, a token of the permission and attribute
 information including conditions of use are registered in
 correspondence with each other;

a permission database;

token obtaining means for, when a permission
 10 character string indicating a permission desired for use is
 output from the application program at the time of
 executing the application program, outputting a token
 obtaining request including the permission character string
 to the conversion means, and receiving a token output from
 15 the conversion means responding to the token obtaining

request; and

second searching means for determining whether to authorize the application program to use the permission or not, in accordance with the attribute information of the permission which corresponds to the token and is obtained
20 by searching the permission database using the token received by the token obtaining means; wherein

the conversion means has a function of, responding to the token obtaining request from the token obtaining means,
25 performing the predetermined conversion process to the permission character string being requested for obtaining the token, and outputting a conversion result to the token obtaining means, and

the search request/saving means has a function of,
30 when the permission necessary for normally operating the application program is determined by the first searching means to be installed in the terminal, obtaining the attribute information of the permission from the token attribute information table, and registering in the
35 permission database the attribute information and the token of the permission in correspondence with each other.

7. The permission token management system as claimed in claim 6, wherein the conditions of use of the permission include an identifier of the application program.

8. The permission token management system as claimed in claims 1 and 5, wherein the conversion means has a function of obtaining a hash value corresponding to a permission character string.

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9. The permission token management system as claimed in claims 1 and 5, wherein the token has less number of characters than that of the permission character string.

10. A permission token management method comprising the steps of:

storing tokens which correspond respectively to a plurality of permissions installed in a terminal and are
5 calculated by performing a predetermined conversion process to permission character strings indicating the permissions;

when a permission character string indicating a permission necessary for normally operating an application program intended to be downloaded is input, outputting a
10 search request including the permission character string;

performing the predetermined conversion process to the permission character string included in the search request, and outputting a token which is a conversion result; and

15 by using the token, determining whether a permission

necessary for normally operating the application program is installed in the terminal or not.

11. A recording medium into which a program for causing a computer to execute each step as claimed in claim 10 is recorded.

12. A program as an electric signal for causing a computer to execute each step as claimed in claim 10.